and the LV 12 are in a filled state. This is demonstrated by the outward bulging of the individual chambers. If the filling pressures were low, the CVP and PCWP meters would point inwards and the display would show the RV and LV chambers to be scalloped inwards. The shape of the chambers conveys the status of FULL vs EMPTY. Located in-between the RA 6 and the RV 8 on the far left is a CVP meter 47 which moves in conjunction with the filling state of the RV 8. For example, if the RV is overfilled, the CVP meter 47 moves from the twelve o'clock position toward the eleven o'clock position or beyond. If the RV is under filled (not shown), the CVP meter moves from the twelve o'clock position to the one o'clock position or beyond. At the bottom of the LV chamber is the PCWP meter 48 which, like the CVP meter 47, moves according to the filling state of the LV 12.

Please replace paragraph [0082] with the following rewritten paragraph:

[0082] In the middle of the extended heart object 4 is a bold vertical line representing the septum 34. In the middle of the septum 34 is an oval shaped object 36 which represents the Atrio-ventricular node (AV-Node) and is intersected by the ventricular bundle (bundle of His 22). To the left of the septum 34 in the RV 8 is an elongated, rectangular shaded box 38 which represents the compliance state of the right ventricle. A reference box depicting the normal width is the same as the shaded box and therefore not visible. To the right of the septum 34 in the LV 12 are two vertically oriented rectangular, shaded boxes 40A and 40B, which illustrates non-compliant left ventricle because the shaded area extends beyond the reference box width that conveys the normal compliance state. Greater than normal compliance would be shown as a shaded area narrower than the reference box. Typically the reference box would be shown in a different color, such as purple, that would make it easy to see the patient state relative to the normal. As noted, to the left of the septum 34 is an another elongated, rectangular shaded box 38 and this represents a normal right ventricle. The RV and LV can be represented as being of normal, increased or decreased compliance.

Please replace paragraph [0084] with the following rewritten paragraph:

[0084] Below LV 12 and extending from the extended heart object 4 is an example of stenosis of the aortic valve 44. The one arrow extending from the aortic valve 44 shows obstructed blood flow. Separating the aortic valve 44 and the LV 12 are two, side-by-side, bolded, horizontally oriented rectangles 46A and 46B which represent a thickened aortic valve. Thickening of any valve would be shown in the same manner. The extended heart object 4 of the present invention mimics the human heart and displays information in an intuitive manner to physicians or other medical personnel allowing for the display of a large quantity of information in a simplified manner.

a4

Please replace the paragraph [0085] with the following rewritten paragraph:

[0085] Referring now to Figure 3, the process of updating the extended heart object begins when a start signal is transmitted by the user at start state 5. The start signal can be a keystroke or a mouse command that initiates the software to begin collecting data. After receiving the start command at state 5, the process moves to a state 7 where the stroke volume ("SV") is read. The stroke volume can be read from a table or a buffer in the computer system. After the SV is read, the process moves to a state 9 where the heart rate ("HR") is read.

a5

Please replace the paragraph [0099] with the following rewritten paragraph:

[0099] An alternative embodiment of the vascular circuit is shown in Figure 5. In this embodiment, the extended heart object is omitted. In its place is an abbreviated heart object showing only the right ventricle ("RV") object 86. Blood flow is indicated by an arrow between the cell/tissue object 84 and RV object 86. In this embodiment, the chambers of the heart are split with the LV 96 downstream. Blood flow leaves RV 86 and enters into a pulmonary vascular resistor object 88 which functions in the same manner as vascular resistor object 58 of Figure 4. Vascular resistor object 88 is used to display the blood flow equivalent to Ohm's law and the data is visually displayed in the form of object 58 as a "pipe" shaped object wherein blood flow is from right to left. The area inside the pipe can be darkened to represent the represent the inflow of blood into the pipe and to aid visually. Both vascular resistance objects of Figure 5 can have a

a6